

REMARKS

The Office Action dated October 8, 2008, has been received and carefully noted. The above amendments to the claims, and the following remarks, are submitted as a full and complete response thereto.

Claims 13 and 24 have been amended to more particularly point out and distinctly claim the subject matter of the invention. No new matter has been added. Applicants appreciatively acknowledge that claims 1, 3-5, and 15-18 are allowed. Applicants submit claims 13, 24 and 26-30 for consideration in view of the following.

Improper Office Action

The pending Office Action and the finality thereof are improper because the Office Action failed to make a *prima facie* rejection under 35 U.S.C. § 101. On page 2, the Office Action rejected claims 13, 24, and 26-29 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In support of this rejection, the Office Action stated that, "A computer node is broadly readable upon computer software without any tangible embodiments." This rejection is improper because the Office Action failed to properly examine the claims and provide a clear explanation for the rejection.

Regarding the examination of claims under 35 U.S.C. § 101, MPEP 2106 states that "when evaluating the scope of a claim, *every* limitation in the claim must be considered" [emphasis added]. MPEP 2106 also state that "[t]he claims define the property rights provided by a patent, and thus require *careful* scrutiny" [emphasis added].

Additionally, “USPTO personnel must first determine the scope of a claim by *thoroughly* analyzing the language of the claim before determining if the claim complies with each statutory requirement for patentability. See *In re Hiniker Co.*, 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) (“[T]he name of the game is the claim.”) [emphasis added]. *Id.*

In the instant case, the Office Action has failed to properly examine the rejected claims. As mentioned above, the Office Action rejected claims 13, 24, and 26-29 on the grounds that, “A computer node is broadly readable upon computer software without any tangible embodiments.” However, claims 13, 24, and 26-29 are not directed to a “computer node,” as alleged by the Office Action. Rather, claims 13, 24, and 26-29 are directed to an “apparatus,” which is a machine or manufacture under 35 U.S.C. § 101. Accordingly, the Office Action failed to comply with the provisions of MPEP 2106, and improperly rejected claims 13, 24, and 26-29 based on limitations that are not recited.

Additionally, the Office Action has failed to provide a clear explanation for the rejection. 37 C.F.R. § 1.104(b) mandates that an Office Action must be **complete as to all matters** (emphasis added). MPEP § 707.07(f) further states that “[i]n order to provide a complete application file history and to enhance the clarity of the prosecution history record, an examiner **must** provide clear explanations of all actions taken by the examiner during prosecution of an application” (emphasis added).

As mentioned above, the Office Action has attempted to reject claims 13, 24, and 26-29 based on limitations not recited in the claims. Attempting to reject claims 13, 24,

and 26-29 in such a manner has created a considerable amount of ambiguity in the rejection. For example, it is unclear whether the Examiner's use of "computer node" was a typographical error, whether the Examiner failed to consider the limitations as they are actually recited in the claims, or whether the Examiner believed that a "computer node" and an "apparatus" are somehow comparable. This ambiguity not only taints the clarity of the prosecution history record, but it also frustrates an expeditious patent examination system by unnecessarily complicating Applicants' ability to evaluate and address the Examiner's actual position. Accordingly, the Office Action has failed to set forth a clear explanation for the rejection, in violation of MPEP 707.07.

Furthermore, the Office Action does not set forth the status of claim 30. Claim 30 is depends from claim 13, which, as discussed above, was rejected under 35 U.S.C. § 101. However, the Office Action does not discuss the status of claim 30. Consequently, the status of claim 30 is unclear. More particularly, it is unclear whether the Examiner intended to reject claim 30 along with claim 13 or whether the Examiner intended to allow claim 30 because of the limitations recited therein. Accordingly, in addition to the reasons discussed above, the Office Action is improper for failing to clearly set forth the status of claim 30.

In light of the above, the Office Action has failed to make a *prima facie* rejection under 35 U.S.C. § 101 for failing to consider all the limitations of the rejected claims and for failing to provide a clear explanation for the rejection. Failure to make a *prima facie* rejection renders the pending Office Action and the finality thereof improper. Applicants

therefore respectfully request that the pending Office Action be withdrawn, and that the rejected claims be allowed, or that a new Office Action be issued.

35 U.S.C. § 101 Rejections

Claims 13, 24, and 26-29 were rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. In support of this rejection, the Office Action stated that, “A computer node is broadly readable upon computer software without any tangible embodiments.” Applicants respectfully assert that claims 13, 24, and 26-29 comply with 35 U.S.C. § 101.

Claim 13 is directed to an apparatus that comprises at least one resource configured to perform at least one network-specific task and a receiver configured to receive periodic heartbeat messages from another computer node. The apparatus also includes a transmitter configured to transmit heartbeat acknowledgement messages to the other computer node as responses to the periodic heartbeat messages, where each heartbeat acknowledgement message indicates to the other node that the computer node is operative within the computer network, and where the heartbeat acknowledgement messages form a sequence of heartbeat acknowledgement messages. The transmitter comprises an examining unit configured to examine whether state information is to be retrieved for a heartbeat acknowledgement message to be transmitted to the other computer node, the heartbeat acknowledgement message belonging to the sequence of heartbeat acknowledgement messages and the state information being indicative of current ability of the at least one resource to perform the at

least one network-specific task. Additionally, the transmitter further comprises a retrieving unit configured to retrieve, upon indication by the examining unit, state information for the heartbeat acknowledgement message and a sending unit, responsive to the retrieving unit, configured to send the retrieved state information in the heartbeat acknowledgement message to said other computer node. The examining unit is further configured to operate for each heartbeat acknowledgement message to be transmitted to said other computer node, thereby transferring a sequence of the state information within the sequence of heartbeat acknowledgement messages to the other computer node. Claim 26 recites similar limitations, but in a means-plus-function format.

Claim 24, upon which claims 28-29 depend, is directed to an apparatus that comprises a transmitter configured to transmit periodic heartbeat messages to a second computer node of a computer network, the second computer node including at least one resource configured to perform at least one network-specific task. The apparatus also includes a receiver configured to receive heartbeat acknowledgement messages from the second computer node as responses to the heartbeat messages, where the heartbeat acknowledgement messages form a sequence of heartbeat acknowledgement messages and where each heartbeat acknowledgement message of the sequence indicates that the second computer node is operative within the computer network. The apparatus also comprises an examining unit configured to examine whether a heartbeat acknowledgement message comprises state information indicative of current ability of the at least one resource to perform said at least one network-specific task, where the heartbeat acknowledgement

message is any of the heartbeat acknowledgement messages of the sequence. The apparatus further comprises a storing unit configured to store the state information for managing the computer network. Claim 27 recites similar limitations, but in a means-plus-function format.

Each of claims 13, 24, and 26-29 are directed to patentable subject matter that complies with 35 U.S.C. § 101. Regarding patentable subject matter, 35 U.S.C. § 101 states that:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

As mentioned above, claims 13, 24, and 26-29 are each directed to “An apparatus,” which clearly constitutes a machine or manufacture under 35 U.S.C. § 101. Furthermore, paragraphs [0003]-[0005] of the Specification explicitly support an interpretation that the apparatus can be a device with components such as a processor, memory, and network interface, which are known in the art to have physical structures. Moreover, a “receiver” is often referred to as a “device that receives a transmission signal.” Harry Newton, *HarNewton's Telecom Dictionary*, 616 (18th ed. 2002). Consequently, the plain language of the claims, the Specification, and the knowledge of one of ordinary skill in the art support an interpretation where the rejected claims comprise at least some physical features.

By contrast the Office Action's interpretation is unreasonable because it is not supported by the plain language of the claims, the Specification, or the knowledge of one of ordinary skill in the art.

The Office Action, as best understood, took the position that the "receiver," "transmitter," and "examining unit" could be reasonably interpreted as only software. The Office Action failed to cite any portion of the Specification or secondary source that supports this interpretation. Accordingly, the Office Action's interpretation is completely unsupported.

Moreover, the Office Action's interpretation of the claims is unreasonable because software cannot do, or be configured to do, anything unless it is embodied on hardware. For example, in embodiments where the claimed receiver includes some software, the claimed receiver must also include hardware components in order to actually "receive periodic heartbeat messages from another computer node." Similarly, the claimed transmitter must include at least some hardware components in order to be able to "transmit heartbeat acknowledgement messages to the other computer node as responses to the periodic heartbeat messages." In other words, the "receiver" and "transmitter" can not be software alone. If they are to actually receive and transmit, hardware is absolutely required. Indeed, mankind has yet to devise a way in which intangible software can perform operations without the aid of any hardware. Accordingly, not only is the Office Action interpretation of the claims unsupported, but the interpretation is unreasonable because it amounts to a technological impossibility.

Further, an apparatus cannot “comprise” that which only exists in the abstract. Rather, in order for a physical object such as an apparatus to actually “comprise” something, that something must include at least some physical features. So, for example, in order for the apparatus of claim 13 to actually “comprise” the claimed “receiver” and “transmitter,” the “receiver” and “transmitter” must include at least some hardware by virtue of the apparatus being a physical object. Consequently, the interpretation of the Office Action is unreasonable for this reason as well.

Accordingly, the plain language of the claims, the Specification, and the knowledge of one of ordinary skill in the art all support an interpretation of claim 13, 24, and 26-29 that satisfy the requirements of 35 U.S.C. § 101. However, the Office Action has attempted to reject the claims based on an interpretation that is unreasonable because it is not supported by the plain language of the claims, the Specification, the knowledge of one of ordinary skill in the art, or technology available to mankind. Accordingly, claims 13, 24, and 26-29 comply with 35 U.S.C. § 101. Withdrawal of this rejection is therefore respectfully requested.


Conclusion

In light of the above, Applicants respectfully request that the pending claims pass to allowance, and the application be issued.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact, by telephone, the Applicants' undersigned representative at the indicated telephone number to arrange for an interview to expedite the disposition of this application.

In the event this paper is not being timely filed, the Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension together with any additional fees may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,


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Enclosures: Petition for Extension of Time
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